

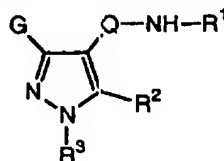
Applicants: Mark Ledebner et al.
 Application No.: 10/005,133

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AMENDMENTS TO THE CLAIMS

Please replace all prior versions and listings of claims with the amended claims as follows:

1. (Currently amended) A compound of formula I:



I

or a pharmaceutically acceptable salt thereof, wherein:

R^1 is selected from ~~hydrogen~~, CONH_2 , $\text{T}_{(n)}\text{-R}$, or $\text{T}_{(n)}\text{-Ar}^1$;

R is an aliphatic or substituted aliphatic group;

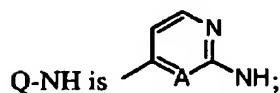
n is zero or one;

T is $\text{C}(=\text{O})$, CO_2 , CONH , $\text{S}(\text{O})_2$, $\text{S}(\text{O})_2\text{NH}$, COCH_2 or CH_2 ;

R^2 is selected from hydrogen, -R, $-\text{CH}_2\text{OR}$, $-\text{CH}_2\text{OH}$, $-\text{CH}=\text{O}$, $-\text{CH}_2\text{SR}$, $-\text{CH}_2\text{S}(\text{O})_2\text{R}$, $-\text{CH}_2(\text{C}=\text{O})\text{R}$, $-\text{CH}_2\text{CO}_2\text{R}$, $-\text{CH}_2\text{CO}_2\text{H}$, $-\text{CH}_2\text{CN}$, $-\text{CH}_2\text{NHR}$, $-\text{CH}_2\text{N}(\text{R})_2$, $-\text{CH}=\text{N}-\text{OR}$, $-\text{CH}=\text{NNHR}$, $-\text{CH}=\text{NN}(\text{R})_2$, $-\text{CH}=\text{NNHCOR}$, $-\text{CH}=\text{NNHCO}_2\text{R}$, $-\text{CH}=\text{NNHSO}_2\text{R}$, $-\text{CH}_2(\text{aryl})$, $-\text{CH}_2\text{NH}_2$, $-\text{CH}_2\text{NHCOR}$, $-\text{CH}_2\text{NHCONHR}$, $-\text{CH}_2\text{NHCON}(\text{R})_2$, $-\text{CH}_2\text{NRCOR}$, $-\text{CH}_2\text{NHCO}_2\text{R}$, $-\text{CH}_2\text{CONHR}$, $-\text{CH}_2\text{CON}(\text{R})_2$, $-\text{CH}_2\text{SO}_2\text{NH}_2$, $-\text{CH}_2(\text{heterocyclyl})$, or $-(\text{heterocyclyl})$;

R^3 is selected from ~~hydrogen~~, -R, hydroxyalkyl, alkoxyalkyl, alkylthioalkyl, aminoalkyl, alkylaminoalkyl, dialkylaminoalkyl, heterocyclyl, heterocyclylalkyl, aryl, aralkyl, or aryloxyalkyl;

G is hydrogen or C_{1-3} alkyl;



wherein the H of Q-NH is optionally replaced by R, COR, $\text{S}(\text{O})_2\text{R}$, or CO_2R ;

A is N;

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Ar^1 is aryl, substituted aryl, heterocyclyl or substituted heterocyclyl, wherein Ar^1 is optionally fused to a partially unsaturated or fully unsaturated five to seven membered ring containing zero to three heteroatoms;

wherein each substitutable carbon atom in Ar^1 , including the fused ring when present, is optionally and independently substituted by halo, R, OR, SR, OH, NO₂, CN, NH₂, NHR, N(R)₂, NHCOR, NHCONHR, NHCON(R)₂, NRCOR, NHCO₂R, CO₂R, CO₂H, COR, CONHR, CON(R)₂, S(O)₂R, SONH₂, S(O)R, SO₂NHR, or NHS(O)₂R, and wherein each saturated carbon in the fused ring is further optionally and independently substituted by =O, =S, =NNHR, =NNR₂, =N-OR, =NNHCOR, =NNHCO₂R, =NNHSO₂R, or =NR; and

wherein each substitutable nitrogen atom in Ar^1 is optionally substituted by R, COR, S(O)₂R, or CO₂R;

wherein an unsaturated carbon atom of an aryl group is optionally and independently substituted with a halogen, -R, -OR, -OH, -SH, -SR, acyloxy, phenyl (Ph), substituted Ph, -OPh, substituted -CPh, -NO₂, -CN, -NH₂, -NHR, -N(R)₂, -NHCOR, -NHCONHR, -NHCON(R)₂, -NRCOR, -NHCO₂R, -CO₂R, -CO₂H, -COR, -CONHR, -CON(R)₂, -S(O)₂R, -SONH₂, -S(O)R, -SO₂NHR or -NHS(O)₂R;

wherein a saturated carbon of an aliphatic group or non-aromatic heterocyclic ring is optionally and independently substituted with a halogen, -R, -OR, -OH, -SH, -SR, acyloxy, Ph, substituted Ph, -OPh, substituted -OPh, -NO₂, -CN, -NH₂, -NHR, -N(R)₂, -NHCOR, -NHCONHR, -NHCON(R)₂, -NRCOR, -NHCO₂R, -CO₂R, -CO₂H, -COR, -CONHR, -CON(R)₂, -S(O)₂R, -SONH₂, -S(O)R, -SO₂NHR, -NHS(O)₂R, =O, =S, =NNHR, =NNR₂, =N-OR, =NNHCOR, =NNHCO₂R, =NNHSO₂R or =NR; and

wherein a substitutable nitrogen on an aromatic or non-aromatic heterocyclic ring is optionally and independently substituted with R, COR, S(O)₂R or CO₂R.

2. (Currently amended) The compound of claim 1, wherein compound variables are selected from one or more of, or all of, the following groups:

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- (a) R^1 is selected from ~~hydrogen~~, $T_{(n)}$ -R, or $T_{(n)}$ -Ar¹;
 (b) R^2 is selected from hydrogen, -R, -CH₂OR, CH₂OH, CH₂(heterocyclyl),
 -CH₂(substituted heterocyclyl), -(heterocyclyl), or -(substituted heterocyclyl);
 (c) R^3 is selected from -R, heterocyclyl, heterocyclylalkyl, aryl, or aralkyl; and/or
 (d) G is hydrogen or methyl.

3. (Currently amended) The compound of claim 2, wherein:

- (a) R^1 is selected from ~~hydrogen~~, $T_{(n)}$ -R, or $T_{(n)}$ -Ar¹;
 (b) R^2 is selected from hydrogen, -R, -CH₂OR, CH₂OH, -CH₂(aryl),
 -CH₂(heterocyclyl), -CH₂(substituted heterocyclyl), -(heterocyclyl), or -(substituted
 heterocyclyl);
 (c) R^3 is selected from -R, heterocyclyl, heterocyclylalkyl, aryl, or aralkyl; and
 (d) G is hydrogen or methyl.

4. (Previously presented) The compound of claim 3, wherein G is hydrogen or
 methyl; R^1 is selected from phenyl, cyclohexyl, pyridyl, naphthyl, or quinolinyl; R^2 is
 selected from hydrogen, methyl, alkoxymethyl, benzyloxymethyl, or heterocyclylmethyl;
 and R^3 is phenyl or benzyl; wherein each R^1 - R^3 is optionally substituted.

5. (Previously presented) The compound of claim 3, wherein G is hydrogen or
 methyl; R^1 is phenyl or cyclohexyl; R^2 is methoxymethyl, methoxyethoxymethyl,
 ethoxymethyl, piperidin-1-ylmethyl, morpholin-4-ylmethyl, or tetrahydrofuran-3-
 ylmethyl; and R^3 is phenyl or benzyl; wherein each R^1 - R^3 is optionally substituted.

6. (Previously presented) The compound of claim 1, the compound being selected
 from:

No.	G	R^1	R^2	R^3
II-1	CH ₃	Phenyl	H	Ph
II-2	CH ₃	4-methoxy-phenyl	H	Ph
II-3	CH ₃	3,4-dimethoxy-phenyl	H	Ph
II-4	CH ₃	3,5-dimethoxy-phenyl	H	Ph
II-5	CH ₃	4-cyano-phenyl	H	Ph

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No.	G	R ¹	R ²	R ³
II-6	CH ₃	3-fluoro-phenyl	H	Ph
II-7	CH ₃	4-fluoro-phenyl	H	Ph
II-8	CH ₃	4-COCH ₃ -phenyl	H	Ph
II-9	CH ₃	4-CONH ₂ -phenyl	H	Ph
II-10	CH ₃	4-SCH ₃ -phenyl	H	Ph
II-11	CH ₃	3-OCH ₃ -phenyl	H	Ph
II-12	CH ₃	3,4,5-trimethoxy-phenyl	H	Ph
II-13	CH ₃	4-CO ₂ CH ₃ -phenyl	H	Ph
II-14	CH ₃	4-SO ₂ CH ₃ -phenyl	H	Ph
II-15	CH ₃	4-CO ₂ CH ₃ -phenyl	H	Ph
II-16	CH ₃	4-N(CH ₃) ₂ -phenyl	H	Ph
II-17	CH ₃	3-NO ₂ -phenyl	H	Ph
II-18	CH ₃	3-NHCOCH ₃ -phenyl	H	Ph
II-19	CH ₃	3-NH ₂ -phenyl	H	Ph
II-20	CH ₃	4-NO ₂ -phenyl	H	Ph
II-21	CH ₃	3-(CH ₂ CH ₂ CO ₂ H)-phenyl	H	Ph
II-22	CH ₃	3-(CH ₂ CO ₂ H)-phenyl	H	Ph
II-23	CH ₃	3-CH ₂ OH-phenyl	H	4-CH ₃ -Ph
II-24	CH ₃	Phenyl	H	4-OMe-phenyl
II-25	CH ₃	4-methoxy-phenyl	H	4-OMe-phenyl
II-26	CH ₃	3,4-dimethoxy-phenyl	H	4-Cl-Ph
II-27	CH ₃	3,5-dimethoxy-phenyl	H	3,4-Cl ₂ -Ph
II-28	CH ₃	4-cyano-phenyl	H	4-F-Ph
II-29	CH ₃	3-fluoro-phenyl	H	4-OMe-phenyl
II-30	CH ₃	4-fluoro-phenyl	H	2,5-Cl ₂ -Ph [[Ph]]
II-31	CH ₃	4-COCH ₃ -phenyl	H	2,4-F ₂ -Ph
II-32	CH ₃	4-CONH ₂ -phenyl	H	4-NO ₂ -Ph
II-33	CH ₃	4-SCH ₃ -phenyl	H	3,5-Cl ₂ -Ph
II-34	CH ₃	3-OCH ₃ -phenyl	H	3-Cl-Ph
II-35	CH ₃	3,4,5-trimethoxy-phenyl	H	4-OMe-phenyl
II-36	CH ₃	4-CH ₃ -phenyl	H	3-OBn-Ph
II-37	CH ₃	cyclohexyl	H	4-OMe-phenyl
II-38	CH ₃	cyclohexyl	H	4-OMe-phenyl
II-39	CH ₃	cyclohexyl	H	4-Cl-Ph
II-40	CH ₃	cyclohexyl	H	3,4-Cl ₂ -Ph
II-41	CH ₃	cyclohexyl	H	4-F-Ph
II-42	CH ₃	cyclohexyl	H	4-OMe-phenyl
II-43	CH ₃	cyclohexyl	H	2,5-Cl ₂ -Ph
II-44	CH ₃	cyclohexyl	H	2,4-F ₂ -Ph
II-45	CH ₃	cyclohexyl	H	4-NO ₂ -Ph
II-46	CH ₃	cyclohexyl	H	3,5-Cl ₂ -Ph
II-47	CH ₃	cyclohexyl	H	3-Cl-Ph

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No.	G	R ¹	R ²	R ³
II-48	CH ₃	cyclohexyl	H	4-OMe-phenyl
II-49	CH ₃	cyclohexyl	H	3-OBn-Ph
II-50	CH ₃	cyclohexyl	H	-CH ₂ Ph
II-51	CH ₃	cyclohexyl	H	Ph
II-52	CH ₃	Phenyl	H	4-OMe-phenyl
II-53	H	4-methoxy-phenyl	H	4-OMe-phenyl
II-54	H	3,4-dimethoxy-phenyl	H	4-Cl-Ph
II-55	H	3,5-dimethoxy-phenyl	H	3,4-Cl ₂ -Ph
II-56	H	4-cyano-phenyl	H	4-F-Ph
II-57	H	3-fluoro-phenyl	H	4-OMe-phenyl
II-58	H	4-fluoro-phenyl	H	2,5-Cl ₂ -PhPh
II-59	H	4-COCH ₃ -phenyl	H	2,4-F ₂ -Ph
II-60	H	4-CONH ₂ -phenyl	H	4-NO ₂ -Ph
II-61	H	4-SCH ₃ -phenyl	H	3,5-Cl ₂ -Ph
II-62	H	3-OCH ₃ -phenyl	H	3-Cl-Ph
II-63	H	3,4,5-trimethoxy-phenyl	H	4-OMe-phenyl
II-64	H	4-CH ₃ -phenyl	H	3-OBn-Ph
II-65	H	cyclohexyl	H	benzyl
II-66	H	cyclohexyl	H	4-OMe-phenyl
II-67	H	cyclohexyl	H	phenyl
II-68	H	cyclohexyl	H	3,4-Cl ₂ -Ph
II-69	H	cyclohexyl	H	2,4-Cl ₂ -Ph
II-70	H	cyclohexyl	H	4-OMe-phenyl
II-71	H	cyclohexyl	H	2,5-Cl ₂ -Ph
II-72	H	cyclohexyl	H	2,4-F ₂ -Ph
II-73	H	cyclohexyl	H	4-NO ₂ -Ph
II-74	H	cyclohexyl	H	3,5-Cl ₂ -Ph
II-75	H	cyclohexyl	H	3-Cl-Ph
II-76	H	Phenyl	H	4-OMe-phenyl
II-78	CH ₃	4-methoxy-phenyl	H	-CH ₂ Ph
II-79	CH ₃	3,4-dimethoxy-phenyl	H	-CH ₂ Ph
II-80	CH ₃	3,5-dimethoxy-phenyl	H	-CH ₂ Ph
II-81	CH ₃	4-cyano-phenyl	H	-CH ₂ Ph
II-82	CH ₃	3-fluoro-phenyl	H	-CH ₂ Ph
II-83	CH ₃	3,4,5-trimethoxy-phenyl	H	-CH ₂ Ph
II-84	CH ₃	3-pyridyl	H	Ph
II-85	CH ₃	4-methoxy-pyrid-3-yl	H	Ph
II-86	CH ₃	2-naphthyl	H	Ph
II-87	CH ₃	Isoquinolin-4-yl	H	Ph
II-88	CH ₃	6-methoxy-naphthalen-2-yl	H	Ph
II-89	CH ₃	Indan-1-on-5-yl	H	Ph
II-90	CH ₃	2-methyl-quinolin-6-yl	H	Ph

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No.	G	R ¹	R ²	R ³
II-91	CH ₃	4-methoxy-phenyl	CH ₃	Ph
II-92	CH ₃	3,4-dimethoxy-phenyl	CH ₃	Ph
II-93	CH ₃	3,5-dimethoxy-phenyl	CH ₃	4-OMe-phenyl
II-94	CH ₃	cyclohexyl	CH ₃	4-OMe-phenyl
II-95	CH ₃	cyclohexyl	CH ₃	4-Cl-phenyl
II-96	CH ₃	cyclohexyl	CH ₃	Ph
II-97	CH ₃	4-methoxy-phenyl	CH ₃	-CH ₂ Ph
II-98	CH ₃	2-methyl-quinolin-6-yl	CH ₃	-CH ₂ Ph
II-99	CH ₃	2-methyl-quinolin-6-yl	CH ₃	-CH ₂ Ph
II-100	H	4-F-phenyl	CH ₃	Ph
II-101	H	4-Cl-phenyl	CH ₃	Ph
II-102	H	4-NO ₂ -phenyl	CH ₃	Ph
II-103	H	cyclohexyl	CH ₃	2,6-difluoro-phenyl
II-104	H	cyclohexyl	CH ₃	3,5-dichloro-phenyl
II-105	H	cyclohexyl	CH ₃	2,4-dichloro-phenyl
II-106	H	cyclohexyl	CH ₃	Ph
II-107	H	3-Cl-phenyl	CH ₃	Ph
II-108	H	3-benzyloxy-phenyl	CH ₃	Ph
II-109	H	phenyl	CH ₃	2,4-difluoro-phenyl
II-110	CH ₃	3-Cl-phenyl	H	phenyl
II-111	H	phenyl	H	2,4-difluoro-phenyl
II-112	H	cyclohexyl	H	phenyl
II-113	H	3-Br-phenyl	CH ₃	phenyl
II-114	H	3-I-phenyl	CH ₃	phenyl
II-115	H	2-chloropyridin-5-yl	CH ₃	phenyl
II-116	H	phenyl	CH ₃	pyridin-2-yl
II-117	H	4-F-phenyl	CH ₃	pyridin-2-yl
II-118	H	4-Cl-phenyl	CH ₃	pyridin-2-yl
II-119	H	3-Cl-phenyl	CH ₃	pyridin-2-yl
II-120	H	4-NO ₂ -phenyl	CH ₃	pyridin-2-yl
II-121	H	3-(benzyloxy)-phenyl	CH ₃	pyridin-2-yl
II-122	H	2,6-difluorophenyl	CH ₃	phenyl
II-123	H	phenyl	CH ₃	3-Cl-phenyl
II-124	H	4-F-phenyl	CH ₃	3-Cl-phenyl
II-125	H	4-Cl-phenyl	CH ₃	3-Cl-phenyl
II-126	H	3-Cl-phenyl	CH ₃	3-Cl-phenyl
II-127	H	4-NO ₂ -phenyl	CH ₃	3-Cl-phenyl
II-128	H	3-(benzyloxy)-phenyl	CH ₃	3-Cl-phenyl
II-129	H	naphthalen-2-yl	CH ₃	phenyl
II-130	H	3,4-dimethoxyphenyl	CH ₃	phenyl
II-131	H	phenyl	CH ₃	6-CH ₃ -4-CF ₃ -pyridin-2-yl

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No.	G	R ¹	R ²	R ³
II-132	H	4-F-phenyl	CH ₃	6-CH ₃ -4-CF ₃ -pyridin2-yl
II-133	H	4-Cl-phenyl	CH ₃	6-CH ₃ -4-CF ₃ -pyridin2-yl
II-134	H	3-Cl-phenyl	CH ₃	6-CH ₃ -4-CF ₃ -pyridin2-yl
II-135	H	4-NO ₂ -phenyl	CH ₃	6-CH ₃ -4-CF ₃ -pyridin2-yl
II-136	H	3-(benzyloxy)-phenyl	CH ₃	6-CH ₃ -4-CF ₃ -pyridin2-yl
II-137	H	3-F-phenyl	CH ₃	pyridin-2-yl
II-138	H	3-chloro-4-methoxyphenyl	CH ₃	pyridin-2-yl
II-139	H	naphthalen-2-yl	CH ₃	pyridin-2-yl
II-140	H	benzimidazol-2-yl	CH ₃	pyridin-2-yl

7-16. (Canceled)

17. (Previously presented) A composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier or diluent.

18-19. (Canceled)

20. (Previously presented) The compound of claim 1, wherein R³ is an optionally substituted aryl or aralkyl.

21. (Previously presented) The compound of claim 1, wherein R³ is an optionally substituted phenyl or benzyl.